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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/731,091

12/10/2003

John Fisher

ALC 3105

8283

7590 06/12/2007
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Suite 240
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Alexandria, VA 22314

EXAMINER

ELPENORD, CANDAL

ART UNIT	PAPER NUMBER
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2609

MAIL DATE	DELIVERY MODE
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06/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/731,091

Applicant(s)

FISHER ET AL.

Examiner

Candal Elpenord

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --


Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final. **SUPERVISORY PATENT EXAMINER**
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.


DANG T. TON

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-20, 22 is/are allowed.
- 6) ☒ Claim(s) 1-3, 10, 12 and 21 is/are rejected.
- 7) ☒ Claim(s) 4-9, 11 and 13-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10 December 2003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Abstract Objection

1. The abstract of the disclosure is objected to because the terms "are provided". Correction is required. See MPEP § 608.01(b). Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 1-3 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shankar et al. (US 2004/0066781)**, in view of **Kompella et al. (US 7,136,374 B1)**.

For claim 1 and 12, Shankar et al. discloses a method of emulating Virtual Provide Local Area Network Service in an Asynchronous Transfer Mode (ATM) Network (**see Fig.1 and paragraph 0002 line 1-8**), comprising:

(a) configuring at a plurality of provider edge devices (PEs) (**see Fig. 1 and paragraph 0030 line 24-33**) a VPLS having a VPLS Identifier (ID);

(b) exchanging information between the PEs indicating a respective ATM address at each PE which is associated with the VPLS (**see paragraph 0013 line 3-11**) ;

For claim 2 and 12, Shankar et al. discloses a method wherein at each PE, the respective ATM address associated with the VPLS is unique to the VPLS (**see paragraph 0034 line 1-13**).

For claim 3 and 12, Shankar et al. discloses a method wherein a second VPLS is emulated at a plurality of the PEs (**see paragraph 0035 line 9-14 and Fig. 2 box PE 2**), and wherein at each such PE the respective ATM address associated with the VPLS is also associated with the second VPLS (**see paragraph 0046 line 3-10**).

For the above claims, **Shankar et al.** discloses all the subject matter with exception of establishing the virtual circuit between the respective PEs. However, **Kompella et al.** from the same field of endeavor teaches a method for each pair of PEs, establishing a respective virtual circuit (**see column**

12 line 1-4) between the pairs of PE as end points of the virtual circuit (**see Fig.2, Fig. 7 box 720 and column 7 line 1-8**). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of the transport networks supporting virtual private networks in which connection/configuration is established between the Provider Edge Devices (PEs) through circuit/channel identifier as taught by **Kompella et al.** into the method of emulating virtual provide local area network service (VPLS) in an Asynchronous Transfer Mode (ATM) network of **Shankar et al.** in order to facilitate easy communication between the PEs. The network connection set up via a virtual circuit between the provider edge devices as taught by **Kompella et al.** can combined /implemented into the VPLS network of **Shankar et al.** through control signaling. The motivation being that it provides a highly scalable network.

5. **Claims 10 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kompella et al.** in view of discloser of **Rochberger et al. (US 6,310,877 B1)**.

For claims 10 and 21, Kompella et al. teaches a method of advertising a service having a service identifier (ID) (see within an Asynchronous Transfer Mode (ATM) network (**see column 15 line 7-16**), a service information group (see **column 13 line 53-57**), the service information group indicating the service ID and an ATM address to be associated with the service (**see column 13 line 60-67**). However, **Kompella et al.** fails to disclose in the ATM network wherein plurality of nodes arranged in a Private Network-to-Network Interface, at each

node which supports the service, generating a PNNI Topology State Element (PTSE), and flooding each PTSE throughout the PNNI hierarchy. **Rochberger et al.** in a similar field of endeavor, discloses a method wherein a plurality of nodes are arranged in a Private Network-Network Interface (PNNI) hierarchy (**See Fig. 1 and column 2 line 30-37**), generating a PNNI Topology State Element (PTSE) at each node (**see column 5 line 42-44**) and flooding each PTSE throughout the PNNI hierarchy (**see column 3 line 21-31**). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the PPNI and PTSE signaling mechanisms of the ATM network as taught of **Rochberger et al.** into the method of advertising a service having a service identifier within an Asynchronous Transfer Mode (ATM) network of **Kompella et al.** to provide service provisioning. The PNNI signaling technique as taught by **Rochberger et al.** can be combined/implemented into the Transport network supporting virtual networks of **Kompella et al.** through control signaling or encapsulating means. The motivation being that it provides bandwidth conservation.

Allowable Subject Matter

6. **Claims 4-9, 11 and 13-16** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. **Claims 17-20 and 22** are allowable, the prior art fails to teach VPLS flooding, generating PNNI Topology State Element and Augmented Routing (PAR) in conjunction with an ATM network couples to a VPLS network.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee et al. (US 2004/0174887 A1), Zelig et al. (US 2004/0037279 A1) and Jalan et al. (US 2005/0027782 A1) are cited to methods and systems that are pertinent to the claimed invention.

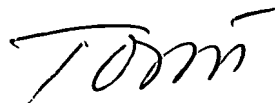
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Candal Elpenord whose telephone number is (571) 270-3123. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CE

A handwritten signature in black ink, appearing to read 'T. Ton' with a stylized flourish at the end.

DANG T. TON
SUPERVISORY PATENT EXAMINER